NOT APPLICABLE TO INTERPLANT SHIPMENT (A)

SPECIAL PACKAGING INSTRUCTION(SPI)

NATIONAL STOCK NUMBER
See Table I, Page 1

NOMENCLATURE	UI	QUP	SPI NUMBER (PN)
FILTER SET, GAS–PARTICULATE: NBC, 200 NBC	EA	1	P5–19–6722

Cleaning & Drying shall be in accordance with MIL–STD–2073–1

MILTARY PRESERVATION REQUIREMENT (MIL–STD–2073–1, Method)	STEPS	DRAWING OR SPECIFICATION	STYLE	TYPE	GRADE	CLASS	SIZE AND REMARKS (INCHES)
(SEE NOTE B)							

INTERMEDIATE MILITARY PRESERVATION AND PACKING
☒ In accordance with MIL–STD–2073–1
☐ As specified hereon.

MARKING
☒ In accordance with MIL–STD–129 and **(I), (P) and (X)**
☐ As specified hereon.

QUALITY PERFORMANCE AND TESTING REQUIREMENTS
☒ In accordance with MIL–STD–2073– **and (D)**
☐ As specified hereon.

Unless otherwise specified, materials shall be minimum size in accordance with MIL–STD–2073–1. Tolerances shall be in accordance with material specifications.

UNIT PACK LOGISITICS DATA (Approximate unit pack weight and size)

	WEIGHT (POUNDS)	CUBE (CUBIC FEET)	SIZE (EXTERIOR FEET)
Level A Primary Design	85.80 lbs.	5.612 cu. ft.	2.19 x 2.19 x 1.17
Level A Alternate Design	71.00 lbs.	4.684 cu. ft.	2.04 x 2.04 x 1.13
Level B Pack	51.08 lbs.	6.564 cu. ft.	2.23 x 2.23 x 1.32

REMARKS/ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.

Table 1

Part Number	Level of Pack	Drawing Title	National Stock Number
5–19–6722–10	Level A Pack	Filter Set, Gas–Particulate: NBC, 200 CFM	4240–01–369–6533
5–19–6722–20	Level B Pack	Filter Set, Gas–Particulate: NBC, 200 CFM	4240–01–486–1344

This SPI covers two part numbers, the filters are the same but, the levels of unit packaging and packaging are different. P5–19–6722–10 covers Level A Unit Pack requirements. SPI P5–19–6722–20 is for the Level B packaging configuration only.

(A) – THIS SPI IS NOT APPLICABLE FOR INTERPLANT SHIPMENTS. Packaging and marking for interplant shipment is for supplies and materials that do not directly enter the military supply system. Typical interplant shipments are shipments from a vendor to a subcontractor or a prime contractor, or between contractors and subcontractors, or from a vendor or contractor to a military arsenal, plant, or other activity for evaluation, immediate use, or further processing as specified in the applicable contract.

ITEM DATA (APPROX)
ITEM SIZE – 980,Z01,Z02,Z14,Z20 Z21,Z30,Y26,Y27
ITEM CODE – 21 7/16 Dia. x 10 1/2 (per filter set)
ITEM WEIGHT – 41.00 lbs.

Original Preparer:J. Stallings

SBCCOM 81361
AMSSB–REN–SE–PK

PAGE NUMBER	NUMBER OF PAGES
1	15

Revised by: JD Stallings/Contr DAA05–01–P1303

APPROVAL		REVISION	DATE
JDS	980–0121–001	C	3 FEB 03
RP	Z01–0141–001	Z01–065/B	25 Jan 01
JGS	S5L3021–001	980–060/A	29 Jun 95
JGS	S1L9450–014	Z01–054(–)	10 Jan 92

DISTRIBUTION STATEMENT A: Approved for public release, distribution unlimited.

Attachment 004

(B) – This SPI allows for a primary and an alternate Level A unit pack. In addition this SPI has data for a Level B unit pack. Refer to the contract or purchase order for the level of unit pack required. Level B pack shall only be used when the filter will be consumed within one year from the pack date. For the primary configuration see pages 1 through 6, notes A through J. For the Alternate design see pages 7 through 9, notes A through D and K through O. For the Level B pack see pages 10 through 15, notes A through D and Notes P through X.

(C) – **FILTER AND PAD, CONTAINER ASSEMBLY.** Four pads shall be placed around the diameter of the drum as shown on page 5 (Primary Configuration) or page 8 (Alternate Configuration) or page 12 for the level B unit pack . Next, insert the Filter Set so that it rests on the pads. Complete the assembly by placing four additional pads on top of the Filter Set as shown on page 5 or 8 or 12.
PRIMARY CONFIGURATION Prior to final closure, prepare cover as indicated in Note (F) and (G). Close and seal the drum in accordance with Note (G).
LEVEL B UNIT PACK Closure of the barrier bags for the Level B unit pack shall be in accordance with note (T) .

(D) – **SAMPLING FOR PACKAGING QUALITY PERFORMANCE AND TESTING**
First Article – First Article packaging sample shall consist of three unit pack containers and their contents for non–destructive testing and inspection and for the Level B unit pack configuration 6 empty barrier bags for destructive testing.
The Primary Configuration The metal container shall show no sign of leakage, for a period of 30 minutes when tested in accordance with MIL–STD–2073–1, Pneumatic pressure technique, appendix G. Sampling shall be 100%. Failure of any item shall be cause for rejection of the lot represented.
Alternate configuration . Vacuum Technique – Place the test specimen (inner container assembly (Drawing 5–19–6407)) in a vacuum chamber so that the uppermost point is 0.5 feet maximum below the surface of the water. Reduce the pressure in the vacuum chamber to an absolute pressure of 6.2+ 0.2 pounds per square inch (12.6 inches + 0.4 inches of mercury) and observe for a stream of bubbles orientating from a single point or two or more bubbles that grow and then release From a single point.
Level B Barrier Bag Leakage Test. Requirements for container leakage for both the First Article and Conformance Inspection shall be with this SPI. The filter unit packed in accordance with step 5 of the Level B unit pack requirements. The bagged filter assembly shall be submerged in water heated to a temperature at least 50 degrees F. above initial temperature of the filter assembly. While holding the bagged assembly submerged with the uppermost surface covered by not more than one inch of water observe for at least 15 seconds to detect leakage. All surfaces of the bagged assembly shall be examined for leakage. There shall not be a steady stream or recurring succession of bubbles from any surface or seam. Bubbles which appear on the surface of the unit pack but are not released or are released at a slowly decreasing rate are not to be construed as an indication of failure. As an alternate the Vacuum Technique test listed above may also be used. Sampling shall be 100% for both test. Failure of any item shall be cause for rejection of the lot represented.
Performance of the Heat sealed seam test for Barrier Bags (steps 3 and 5 of this SPI) . (Level B unit pack only) (Destructive test) Requirements for Heat sealed seam test for both the First Article and Conformance Inspection shall be in accordance with this SPI. The heat seal seam test s hall be performed in accordance with method 2024 of FED–STD–101, at normal room (ambient) temperature using a static weight of 50 ounces (+2 –2) ounces. A five present reduction in static weight is permitted when the room temperature in the test area exceeds 90 degrees F. The test shall be con-

ducted for a minimum of five minutes. During the the first two minutes of the test partial separation in the area of partial fusion adjacent to the actual seal is acceptable. The heat seals shall not show signs of separation during the final three minutes of the test.

Conformance Inspection – Sampling shall be 100%. Any item that fails the leakage test or pressure test shall be rejected. Rejected samples may be resealed and resubmitted for test and inspection.

Conformance Inspection for the Heat Seal seam test of the barrier bags. (Level B Unit Pack) – Sampling size shall be in accordance with Table II, Attributes Sampling Plans of MIL–STD–1916. Verification level I shall be used for destructive tests.

LEVEL A PRIMARY CONFIGURATION

UNIT PACK LEVEL A REQUIREMENTS MIL–STD–2073–1, METHOD 55	STEPS	DRAWING OR SPECIFICATION	STYLE	TYPE	GRADE	CLASS	SIZE AND REMARKS (INCHES)
Drum	(E) 1	MIL–D–6054					
Air Filler Valve	(F)(G)2	SAE AS5017					(see page 3 & 6)
Pad, Container	(C) 3	5–19–6410					(see page 1 & 5)
Adhesive Sealant	(F)(G)4	MIL–A–46106					
Closure	(G) 5						(see page 5)

(E)– DRUM SPECIFICATIONS. Drum shall be, IAW MIL–D–6054, (With exception to the Interior Height). The drum dimensions shall be as follows.

1. 24 "ID x 13 5/8 "INTERIOR HEIGHT x 18 GA. Drum.(pertains to cover being in place)
2. Drum Body, 18 GA.
3. Cover, 18 GA.
4. Locking Ring, (lug and locking ring: 12 GA.).
5. Bolt: 5/8 – 11 x 4 with hex jam nut.
6. Gasket, 1/2 Round, Class II, Grade 60. IAW SAE–AMS–R–6855

(F) –AIR FILLER VALVE. The hole to be drilled in the lid, Approximately center. Size of hole to be consistent with the air filler valve. The air filler valve assembly shall not extend above the collar for maximum protection. The collar around the air filler valve shall be tubing, steel, round, 1 1/2 inch O.D., 11 guage, in accordance with ASTM A513. The collar shall be welded to the lid in accordance with AWS D 9.1 (see page 6).

The Air filler valve shall be in accordance with SAE Specification AS5017.
Suggest Source: (AIR FILLER VALVE)
AGM Container Controls, INC.
P.O. BOX 40020
Tucson, AZ. 85717–0020
phone#520–881–2130
AGM Container Controls, air filler valve part number is: TA322

(G) – SEALANT. Adhesive sealant, silicone RTV, general purpose, IAW MIL–A–46106 shall be used around the filler valve to secure an air tight seal; and to seal the metal drum and lid together. The following steps shall be followed to apply sealant:

1. Thoroughly clean and degrease the surface as required.
2. Apply thin film of primer.
3. Allow to air dry for 60 to 90 minutes.
4. Apply adhesive sealant around filler valve as indicated above. Apply adhesive sealant sufficiently around the lid, to ensure an air tight seal. Closure ring shall then be placed and secured on the metal drum to ensure an air tight seal. The torque to be applied to the closure nut/bolt shall be a minimum of 10 ft. pounds or until no leakage occurs.

(H) – SHIPPING CONTAINER. The Level A unit pack container (metal drum) shall also serve as the Level A shipping container. Exterior container markings shall be IAW MIL–STD–129.

(I) – MARKING. In addition to any special marking required by the contract or order, the exterior shipping container shall be marked in accordance with MIL–STD–129.

1. Each exterior packaging shall have the following information marked on one side:

a. Date packed

b. Lot number of the filter set. The lot number for the filter set shall be preceded by the words 'LOT NO. "Locate markings on the line following the shelf life markings covered in 1e below.

c. Filter weight (bare)Gross weight of the inner filter assembly (including filters and packaging components). The weight shall be measured after packaging and applied to the nearest 1/2 ounce. Locate marking on the line following the identification markings.

d. Serial number of filter set, shall be preceded by the words 'SERIAL NO. "Locate markings on the line following the weight markings covered in 1c above. The gas filter serial number shall be applied first.

e. Shelf life marking for filter set. Locate marking immediately following the serial number markings.

f. Up arrow markings. Mark the exterior shipping container with up arrows, symbol 2 of ASTM D5445.

2. Marking shall be in accordance with MIL–STD–129 and drawing on page 5

(J) – MOISTURE. Prior to packaging, filters shall be conditioned in accordance with the moisture content requirements of PD EA–DTL–1704. Filters shall be packaged in an environment to minimize moisture absorption during packaging operations.